10/31/2008

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450

# NOTICE OF ALLOWANCE AND FEE(S) DUE

29127 7590 HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421 EXAMINER

ROSARIO, DENNIS

ART UNIT PAPER NUMBER

2624 DATE MAILED: 10/31/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,960	03/26/2004	Frank Olschewski	21295.78 (H5780US)	7913

TITLE OF INVENTION: METHOD FOR PERFORMING INTERACTIONS ON MICROSCOPIC SUBJECTS THAT CHANGE IN SPACE AND TIME, AND SYSTEM THEREFOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	02/02/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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INSTRUCTIONS: This appropriate. All further a indicated unless correcte maintenance fee notificat	form should be used I correspondence including d below or directed off ions	or transmitt ig the Paten icrwise in B	ing the ISSU t, advance or lock 1, by (a	JE FEE and PUBLICAT rders and notification of a) specifying a new corre	TON FEE (if requiremaintenance fees verspondence address;	ired). I vill be and/o	Blocks 1 through 5 st mailed to the current r (b) indicating a sepa	nould be completed where correspondence address as trate "FEE ADDRESS" for
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								(Signature)
								(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		CONFIRMATION NO.
10/809,960	03/26/2004			Frank Olschewski		212	95.78 (H5780US)	7913
TITLE OF INVENTION AND SYSTEM THEREF		FORMING I	NTERACTI	ONS ON MICROSCOPIO	C SUBJECTS THA	T CH	ANGE IN SPACE AN	D TIME,
APPLN. TYPE	SMALL ENTITY	ISSUE F	EE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$I	510	\$300	\$0		\$1810	02/02/2009
EXAM	INER	ART	UNIT	CLASS-SUBCLASS	1			
ROSARIO,			524	382-133000	-			
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME AT	ondence address (or Cha //122) attached. cation (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. ess an assignee is ident n in 37 CFR 3.11. Comp	nge of Corre  "Indication and Use of a	spondence form Customer	2. For printing on the (I) the names of up to or agents OR, alternat (2) the name of a sing registered attorney or 2 registered patent att listed, no name will be THE PATENT (print or ty data will appear on the 1 T a substitute for filing an (B) RESIDENCE: (CIT.	o 3 registered pater wely, le firm (having as a agent) and the nam orneys or agents. If printed.  pe)  patent. If an assign assignment.	memb es of u no nan	p to p to get is 3	ocument has been filed for
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□ Issue Fee □ Publication Fee (No small entity discount permitted) □ Advance Order - # of Copies				A check is enclosed. Payment by credit ca The Director is hereb overpayment, to Dep	rd. Form PTO-2038 v authorized to cha	is atta	sched. required fee(s), any de	
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NOTE: The Issue Fee and interest as shown by the r	I Publication Fee (if req ecords of the United Sta	uired) will n tes Patent ar	ot be accepte d Trademark	d from anyone other than c Office.	the applicant; a regi	stered	attorney or agent; or th	e assignee or other party in
Authorized Signature				Date				
Typed or printed name				Registration No				
This collection of informa an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450.	FR 1.311. T U.S.C. 122 USPTO. Ti rden, should ONOT SENI	he information and 37 CFR me will vary be sent to the D FEES OR	on is required to obtain or 1.14. This collection is es depending upon the indi the Chief Information Offic COMPLETED FORMS T	retain a benefit by t etimated to take 12 t vidual case. Any co er, U.S. Patent and O THIS ADDRESS	he pub minuter omment Trader S. SEN	lic which is to file (and s to complete, includin is on the amount of tin nark Office, U.S. Dep D TO: Commissioner	by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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HOUSTON EL	ISEEVA	ROSARIO, DENNIS		
4 MILITIA DRI		ART UNIT PAPER NUMBER 2624		
LEXINGTON, M	IA 02421			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 539 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 539 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)
10/809,960	OLSCHEWSKI ET AL.
Examiner	Art Unit
Dennie Rosario	2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.33 and MPEP 1308.

- 1. This communication is responsive to 7/21/08.
- The allowed claim(s) is/are 1-10.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some\* c) None of the:
    - 1. Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
    - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MALLING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date \_\_\_\_\_
  - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- 1. Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-946).
- Information Disclosure Statements (PTO/SB/08), Pacer No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- 6 Interview Summery (PTO-413).
  Paper No./Mail Date
- Z Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. 🔲 Other \_\_\_\_

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### DETAILED ACTION

### EXAMINER'S AMENDMENT

 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Maria Eliseeva, Reg. No. 43,328 on 10/22/08.

The application has been amended as follows:

In claim 1, after line 2 insert:

-a computer comprising:-

In claim 1, last line:

replace "subject" to -subjects-

## Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last
 Office action is persuasive and, therefore, the finality of that action is withdrawn.

# Response to Arguments

 Applicant's arguments filed 7/21/08 have been fully considered but they are not persuasive.

Applicants state that Garakani does not teach defining virtual reference subjects in order to define regions. The examiner respectfully disagrees since Garakani teaches Application/Control Number: 10/809,960

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an automated defining virtual reference subjects in order to define regions as applicants have already admitted on page 7 of the after final amendment of 3/6/08.

Applicants state that Garakani has nothing to do with a user defining locations within images. The examiner respectfully disagrees since Garakani teaches an automated defining of locations that can manually be done in order to arrive to automation of defining locations.

Applicants state that the attention window size has no relation to the defined reference subjects. The examiner respectfully disagrees since the attention window size is operator selected to allow said automated defining the locations or the claimed reference subjects to occur within said attention window size where the automated defining can be manually done just as the attention window size.

 Applicant's arguments, see Appeal, page 7,lines 14-16 filed 7/21/08, with respect to 102(e) have been fully considered and are persuasive. The rejection of claims 1-10 has been withdrawn

# Allowable Subject Matter

- Claims 1-10 are allowed.
- The following is an examiner's statement of reasons for allowance:

Claim 1 is allowable, because as the applicants have properly pointed out on page 7 of the appeal brief that " 'applying the identified optical flux to the defined reference subjects' are absent in the Garakani publication."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably Application/Control Number: 10/809,960

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### Conclusion

 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Donat-P. Hader (Image Analysis Methods and Applications) is pertinent as teaching identifying optical flux on page 409, but is silent with applying the determined optical flux to a position. Hader uses the optical flux to detect motion for tracking, not to apply the determined flux to a determined position for tracking.

Bernd Jahne (Spatio-Temporal Image Processing) is pertinent as teaching a method of optical flow in the context of optical flux on page 86; however, Jahne does not state if optical flux or flow are the same. Even if assuming that optical flow and optical flux are the same, Jahne does not clearly apply the optical flux or flow to a user specified position.

Chaplen et al. (US Patent 6,913,877) is pertinent as detecting optical changes in the form of optical flux that is represented as RGB as discussed in col. 2, lines 46-56, but Chaplan is deficient for the same reasons as Hader.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis Rosario/ Examiner, Art Unit 2624 /Matthew C Bella/ Supervisory Patent Examiner, Art Unit 2624